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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,638	04/22/2005	Paul Francis Clarke	3700.P0392US	5662
23474 7590 08/20/2009 FLYNN THIEL BOUTELL & TANIS, P.C. 2026 RAMBLING ROAD KALAMAZOO, MI 49008-1631				
EXAMINER				
HOOVER, MATTHEW				
ART UNIT		PAPER NUMBER		
1791				
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08/20/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/532,638

**Applicant(s)**

CLARKE, PAUL FRANCIS

**Examiner**

MATTHEW HOOVER

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 11-15 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-15 and 17-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments, see Applicants Arguments/Remarks, filed 5/18/09, with respect to the rejection(s) of claim(s) 1-16 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hayes (US 4807647).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1-9, 11-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes (US 4807647).

Regarding claims 1, 4, 7 and 19-22 Hayes teaches a filter with a high pressure drop (draw resistance) filter and a second low pressure drop filter (abstract). Figure 4 shows the wrapper (#6) which wraps around the component and provides ventilation and defines the cavity (abstract). Hayes also teaches that the high draw resistance (downstream) filter has tar retention of at most 40% (column 2 lines 56-61) and the low draw resistance (upstream) filter has a tar retention of at most 30% (column 49-55), with a specific example of 27% (table 2).

Hayes discloses a specific value of 40% as an end point for tar retention for the downstream filter which can be taken as a specific value. This value falls within the range of 0 to 50% disclosed in claims 1 and 4. Hayes also discloses that the tar retention for the upstream filter is between 0 and 30%. This range overlaps the range disclosed in claim 1 of 0 and 22%. They each share common values, including the end point 0%.

Regarding claim 7, the range disclosed above in claim 1 encompasses the range value in claim 7 and therefore can be seen to read on the claims. Also, one of ordinary skill in the art would have known that taste and flavor of a cigarette comes from the tobacco and tar components. It is also known that these same components present a health risk. Therefore it is known in the art that there is generally a trade off between taste and reduction of tar/CO (column 2 lines 62-67). Therefore it would have been obvious to one of ordinary skill in the art to adjust the components in order to find the

optimum range between taste and health. The value for the tar retention of the upstream filter (27%) would have been obvious to decrease if the user wanted more taste.

Regarding claims 2 and 3, Hayes teaches that the draw resistance of the downstream filter is over 50mmHG (column 2 lines 36-41), specifically 85mmWG (table 2).

Regarding claims 5 and 6, Hayes teaches that the draw resistance of the upstream filter is at most 50mmHG (column 2 lines 36-41), specifically up to 33mmWG (table 2).

Regarding claims 8-9, Hayes teaches that the filter wrapper provides ventilation, which means it is air permeable (abstract).

Regarding claims 11-14, Hayes teaches that the filter and tobacco rod are joined by a permeable ventilating tipping overwrap which has ventilating perforations, which would register with the cavity (column 1 lines 43-54). The filter paper wrap is also air permeable (column 1 lines 5-27). The many perforations inherently allow air to pass through the components into and out of the cavity in any direction, which would include laterally.

Regarding claim 17, the teachings of Hayes are disclosed above in the rejection of claims 1-14. The filter (figure 2 #2 and 4) is attached to a tobacco rod (figure 2 #8), which is wrapped (column 1 lines 39-62).

Regarding claim 18, the teachings of Hayes are disclosed above in the rejection of claims 1-14.

Hayes does not teach the joining of multiple filters end to end in mirror image relationship.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use multiple filters since it has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See MPEP 2144.04(VI)(B) and see *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). The invention of Hayes is of a multiple filter cigarette filtration device in which the filters (figure 2 #2 and 4) are attached end to end (figure 2). It would have been obvious to add multiple filters since it is already taught in the original invention to have more than one filter, thereby improving filtering ability and removal of CO.

Regarding claim 23, the teachings of Hayes are disclosed above in the rejection of claims 1 and 17.

Regarding claim 24, the teachings of Hayes are disclosed above in the rejection of claim 18.

2. Claims 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes (US 4807647) in view of Banerjee (US 5839449).

Regarding claim 15, Hayes teaches that the CO delivery is 5mg and that CO/tar delivery rate is 0.5 (table 3).

Hayes does not teach that the CO delivery is less than 5 mg.

Banerjee teaches a multiple filter cigarette and a method of making that has a CO delivery of 4.9mg (column 5 lines 1-14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the filter in Hayes multiply to obtain the CO amount from Banerjee. The rationale to do so would have been that CO is bad for one's health, which is commonly known in the art. Therefore it would have been obvious to use the process disclosed in Banerjee to reduce the CO, while still trying to provide a good tasting cigarette (column 2 lines 53-62).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW HOOVER whose telephone number is (571)270-7663. The examiner can normally be reached on Mon-Thurs 7am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kat Wyrozebski can be reached on 571-272-1127. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MH/  
Examiner AU1791

/KAT WYROZEBSKI/  
Supervisory Patent Examiner,  
Art Unit 1791